

IPERS Update

Public Retirement Systems Committee

Gregory S. Samorajski, CEO

December 8, 2021



IPERS' Background

Established in 1953

IPERS is a workforce recruitment tool

Mission: Administer a cost-efficient retirement plan that provides lifetime pension payments to public employees and serves to attract and retain a quality workforce

Governance

Legislature and Governor

- Plan sponsors

Public Retirement Systems Committee

- Reviews public retirement system policy

IPERS Investment Board

- Fund trustee

Benefits Advisory Committee

- Advises on benefits

State Treasurer

- Fund custodian

IPERS Administration

- Carries out the law, collects contributions, invests assets, pays benefits



Plan Sponsors' Roles:

- Creates/amends plan
- Determines plan participation
- Determines plan benefits
- Allocates funds from the IPERS Trust Fund for administrative expenses

Defined Benefit Program



Your Average Salary

✖ Multiplier

(Based on Your Years of Service)

— Reduction

(If You Retire Before Normal Retirement Age)

Your IPERS Benefit

Benefit Program Details:

- ✓ Contributions from employer and employee
- ✓ Benefits are guaranteed for life
- ✓ Paid as a monthly annuity
- ✓ Benefit is based on a formula
- ✓ Benefits are not dependent on stock market performance
- ✓ No general fund appropriation

How IPERS Works

**Contributions +
Investment earnings**

=

**Benefits + Expenses +
Unfunded liability**



70% OF FUNDS USED TO PAY
BENEFITS COME FROM
INVESTMENT INCOME

Core Elements

Mandatory participation

Pooled investment risk

Pooled longevity risk

Employer/employee cost-sharing

Lifetime annuity

Works with Social Security and personal savings

Contribution Rates

	Member Share	Employer Share	Total
Regular Members			
7/1/21 – 6/30/22	6.29%	9.44%	15.73%
7/1/22 – 6/30/23	6.29%	9.44%	15.73%
Sheriffs and Deputy Sheriffs			
7/1/21 – 6/30/22	9.01%	9.01%	18.02%
7/1/22 – 6/30/23	8.76%	8.76%	17.52%
Protection Occupations			
7/1/21 – 6/30/22	6.21%	9.31%	15.52%
7/1/22 – 6/30/23	6.21%	9.31%	15.52%

Membership Groups

Total members: 381,922



IPERS Members

All Members by Status

173,186
Active

79,710
Inactive

119,542
Retired

9,484
Retired
Reemployed

Active Members by Employer Type

90,298
Education

23,601
City

27,588
County

5,644
Other

26,055
State

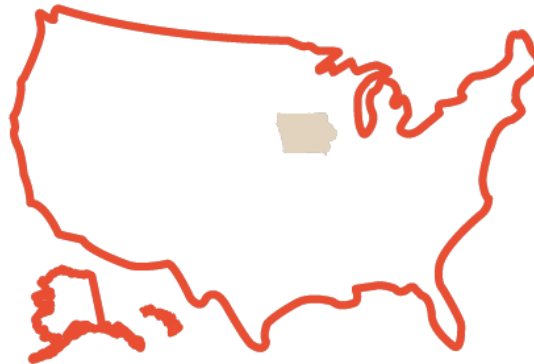
Benefit Payments



Iowa

115,916 payees

\$2,082,541,465 paid



United States

(excluding Iowa):

19,130 payees*

\$282,100,294 paid



World

52 payees

\$533,314 paid

Successes and Challenges

Successes

- Historic investment returns
- Delivery of superior, low-cost customer service
- Senate unanimously confirms IPERS' CEO
- Launch of new www.ipers.org

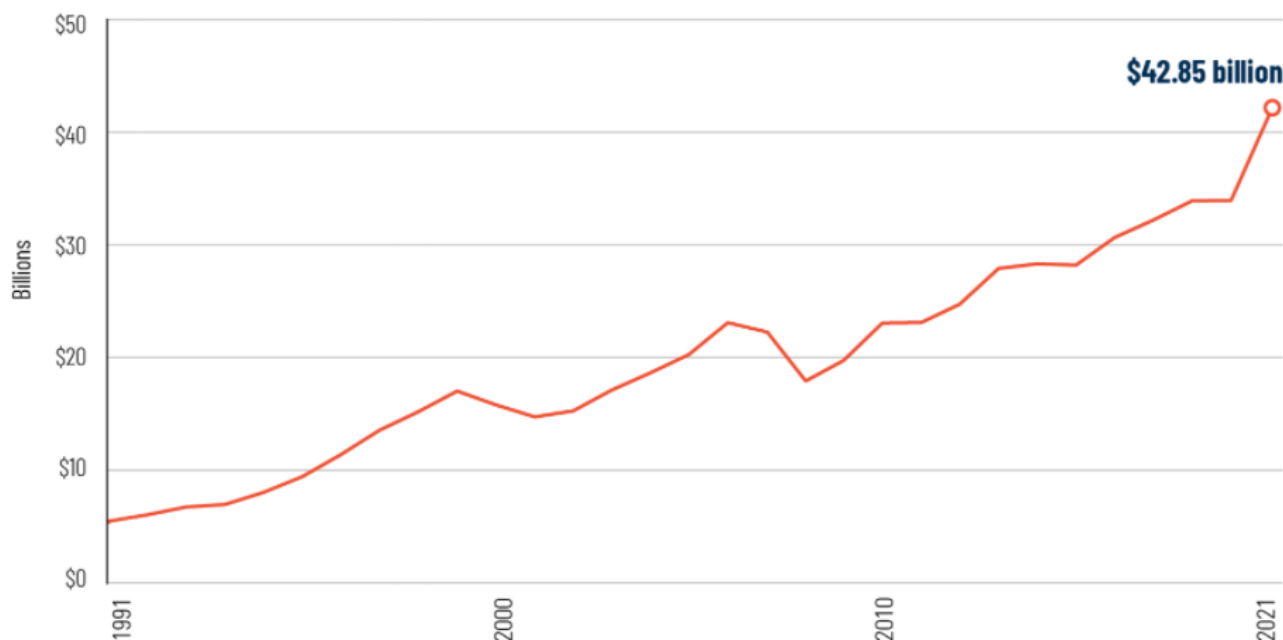
Challenges

- Status quo budget hampers IPERS' ability to effectively manage staff and programs.
- The future investment environment may be difficult. IPERS may not reach its 7% return target from asset allocation alone.
- Retention of key IPERS staff.
- Ability to effectively serve members in the future.
- IPERS' current pension administration software system may not meet IPERS' complex future needs.

Successes

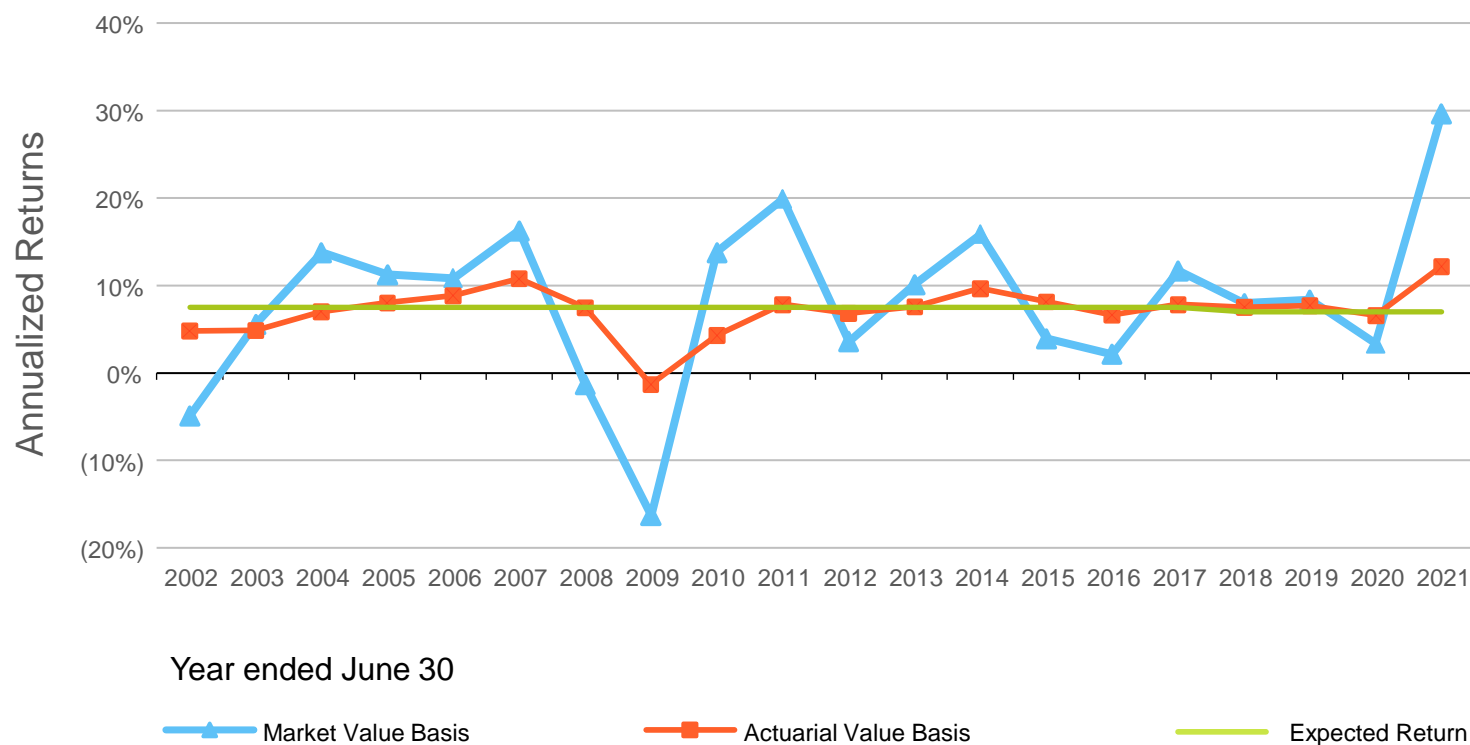
Historic Investment Returns

- 29.6% return
- Second highest in IPERS' history
- Investment income = \$9 billion



Successes

Historical Asset Returns



Successes

Delivery of superior, low-cost customer service



Successes

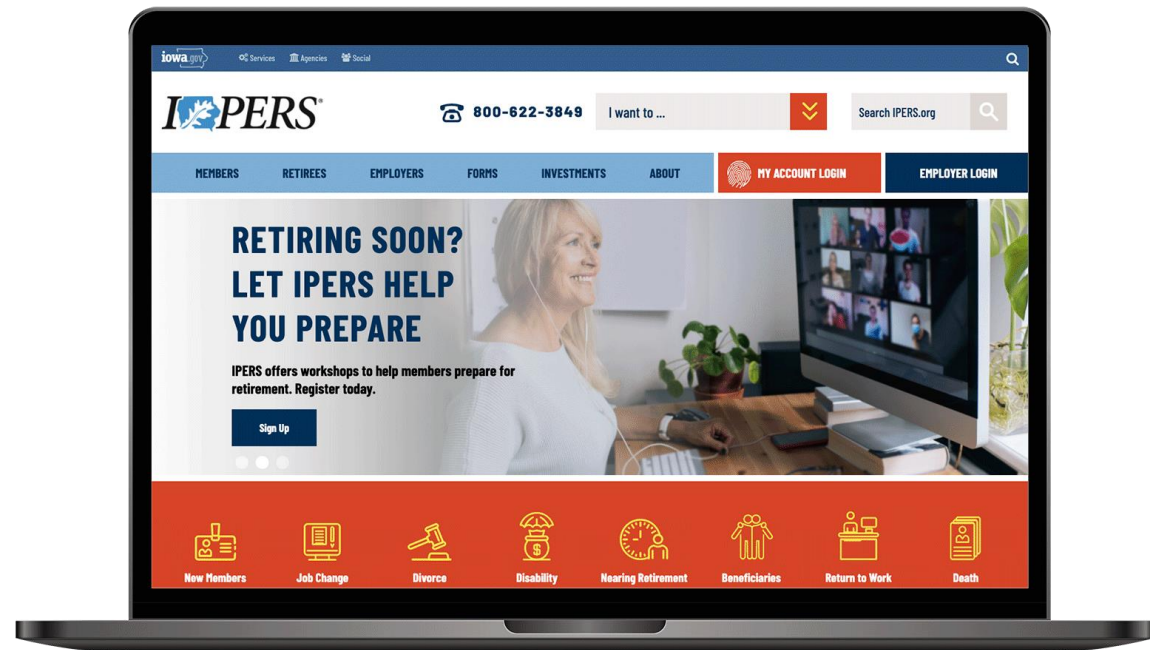
Senate unanimously confirms IPERS' CEO



Successes

Launch of new www.ipers.org

- 800 pages of content
- More than 225,000 users annually

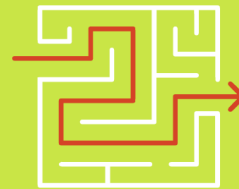


Challenges



Challenge One:

Status quo budget hampers IPERS' ability to effectively manage staff and programs.



Proposed Solution:

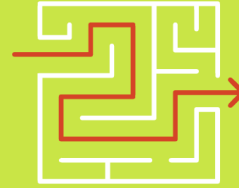
Explore various budget remedies with IGOV.

Challenges



Challenge Two:

The future investment environment may be difficult. IPERS may not reach its 7% return target from asset allocation alone.



Proposed Solution:

Expand the investment staff to acquire more highly skilled professionals. Compensate staff for exceeding returns.

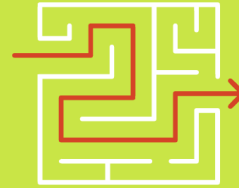
Challenges



Challenge Three:

Retention of key
IPERS staff.

Chief Investment
Officer retiring in
December 2021.



Proposed Solution:

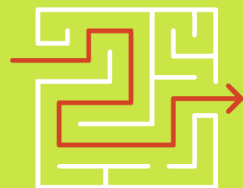
Reclassify six key
staff members who
earn salaries
substantially lower
than other state
pension plans offer.

Challenges



Challenge Four:

Ability to effectively serve members in the future.



Proposed Solution:

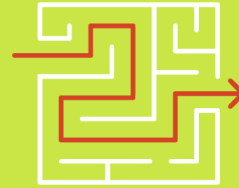
Hire additional Retirement Benefit Officers and IT support staff who will counsel and serve members. Some may live and work in rural Iowa.

Challenges



Challenge Five:

IPERS' current pension administration software system may not meet IPERS' complex future needs.



Proposed Solution:

Hire a consultant to perform a comprehensive study of IPERS' pension administration system software needs and propose best solutions.

IPERS Investment Board



Phyllis S. Peterson
Chair, Voting Member
Term Expires 2022



Justin Kirchhoff
Vice Chair, Voting Member
Term Expires 2025



Bill Bemis
Voting Member
Term Expires 2027



Michael L. Fitzgerald
State Treasurer
Voting Member



Michael Duncan
Voting Member
Term Expires 2023



Kris Rowley
Voting Member
Term Expires 2025



Lisa Stange
Voting Member
Term Expires 2023



Tim Goodwin
State Senator
Nonvoting Member



Pam Jochum
State Senator
Nonvoting Member



Brian Lohse
State Representative
Nonvoting Member



Mary Mascher
State Representative
Nonvoting Member

Trustee is a fiduciary with a legal duty to act:

- Solely in the interest of the participants and beneficiaries
- For the exclusive purpose of providing benefits to participants and beneficiaries in a cost-effective manner

IPERS Investment Board

Roles and Responsibilities:

- Establish the investment policy and risk tolerance of the investment program
- Set an allocation and diversification plan
- Approve the hiring of investment managers, actuaries and consultants
- Review investment performance, investment management expenses and consult on IPERS' administrative budget
- Adopt actuarial methods, mortality tables and assumptions for the actuary to prepare the annual valuation of assets and liabilities

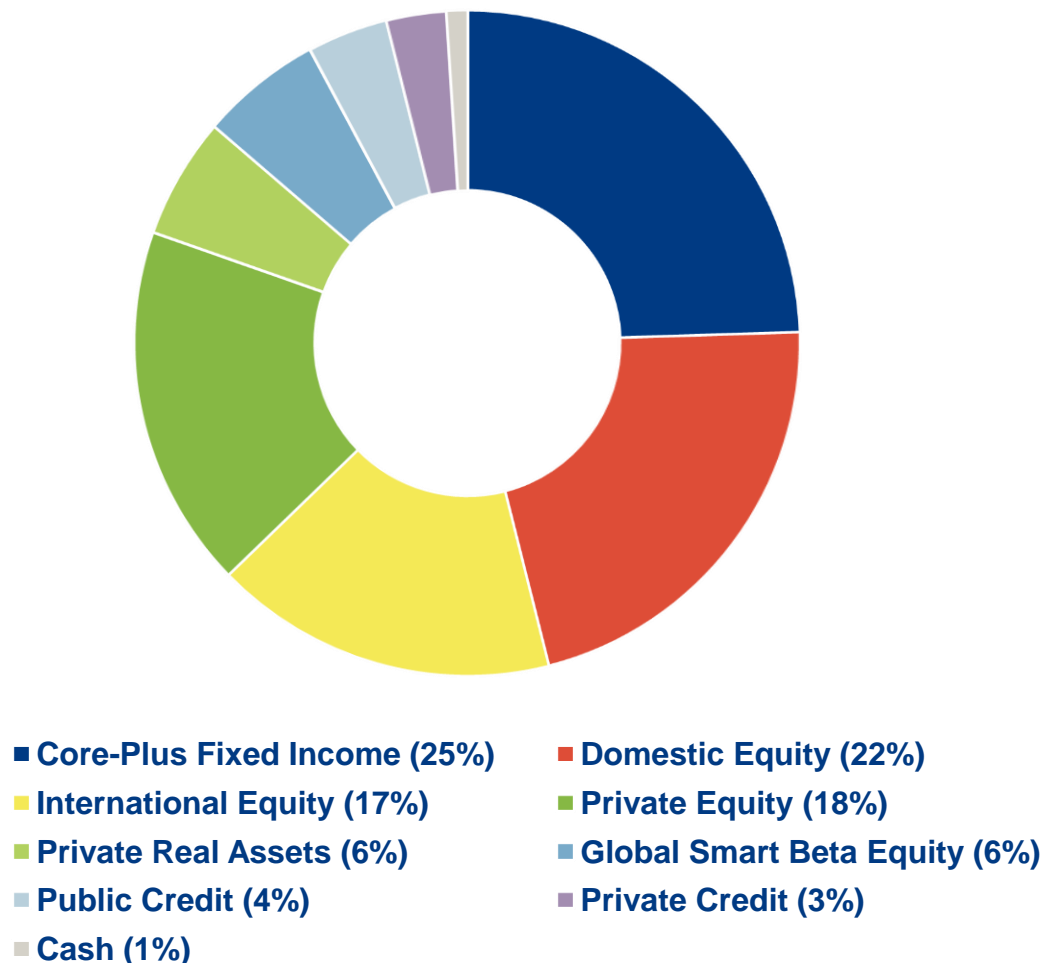
Investment Staff

Chief Investment Officer

- Manages seven investment officers
- Oversees \$43 billion global portfolio
- Key responsibilities:
 - Implement the Board's investment policies
 - Manage investment risk within risk budgets set by the Board
 - Add value – Earn more than the Board's strategic asset allocation plan
 - Advise Board on investment issues; make recommendations for asset allocation and implementation
 - Recommend, oversee and evaluate investment managers; administer competitive bidding process; divestment mandates

Asset Allocation

- Investment Board annually reviews, periodically adjusts
- Most important policy decision, drives 90% of total return
- How much risk?
 - Long-date liabilities allow for long investment horizon
 - Can afford to take more equity and illiquidity risk
 - Cash flows must be monitored diligently



FY2021 Investment Highlights

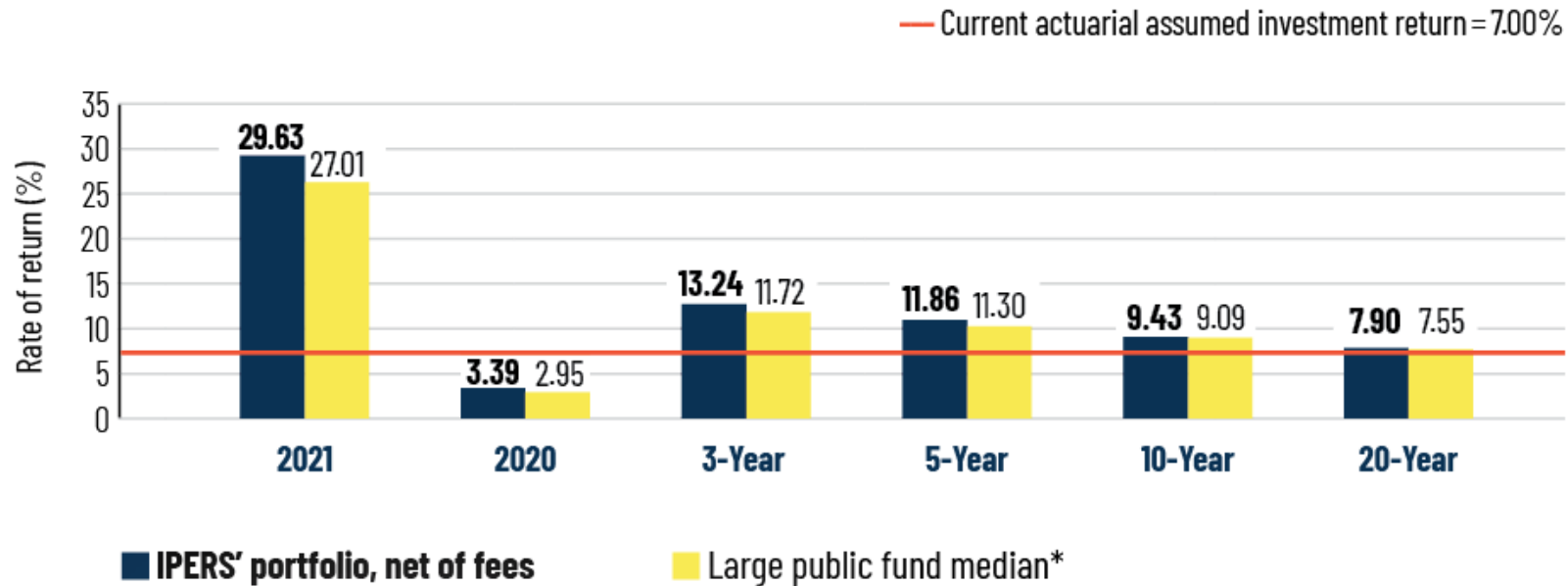
IPERS' 29.63% net investment return exceeded the actuarial assumed investment return of 7%.

Investment expenses (\$68.1 million) were 0.17% of the trust fund's total quarterly average fair value.

IPERS' net investment returns over 3-, 5- and 10-year periods ending June 30, 2021, exceeded the median large public pension fund return and were earned with less risk.

Investment Board approved creation of IPERS' first internally managed investment program, Alternative Risk Premia.

Investment Performance Summary

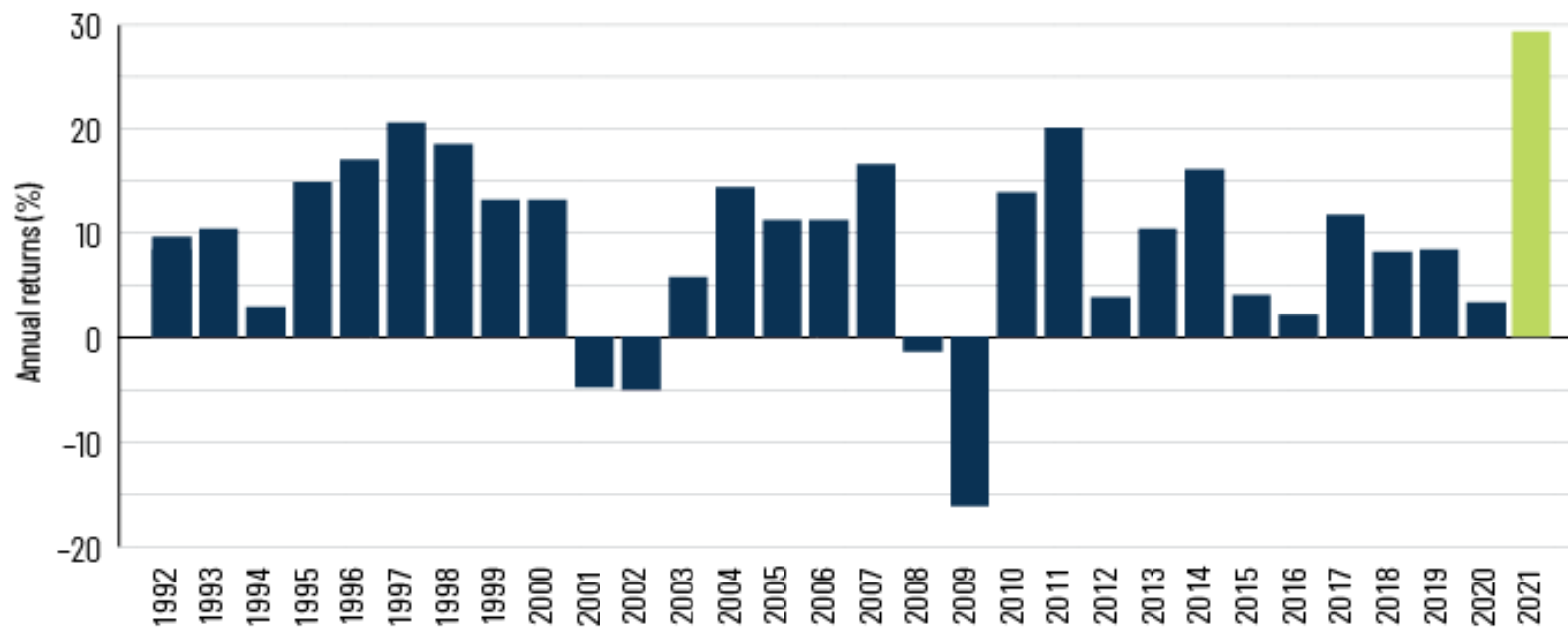


*TUCS Public Funds > \$1 Billion Index.

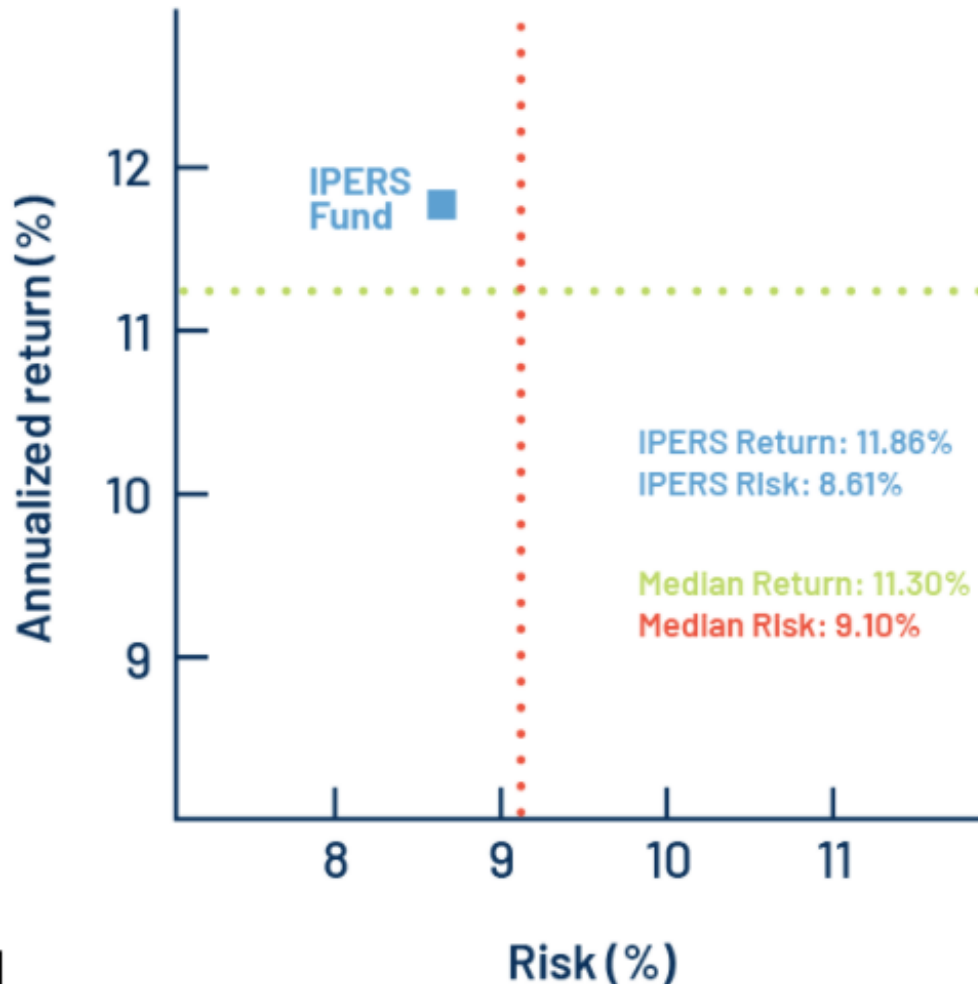
Note: 3-, 5-, 10- and 20-year results are annualized returns.

Investment Returns

Fiscal Years Ended June 30



Risk vs. Total Return



Benefits Advisory Committee



Len Cockman
Chair, Employer Association
Representative: Local School Districts
Voting Member
Term Expires 2024



Lowell Dauenbaugh
Vice Chair, Public Member
Voting Member
Term Expires 2023



Matt Carver
Member Association Representative:
School Administrators
Voting Member
Term Expires 2022



Susanna Cave
Member Association Representative:
State Police Officers Council



Matt Cosgrove
Employer Association Representative:
Counties
Voting Member
Term Expires 2024



Rick Ellender
Member Association Representative:
AFSCME
Voting Member
Term Expires 2022



Andrew Hennessy
Member Association Representative:
IPERS Improvement Association



Steve Hoffman
Member Association Representative:
ISSDA



Connie Kuennen
Employer Association Representative:
Community Colleges



Erin Mullenix
Employer Association Representative:
Cities
Voting Member
Term Expires 2023



Melissa Peterson
Member Association Representative:
Teachers
Voting Member
Term Expires 2023



Jim Romar
Member Association Representative:
International Brotherhood of Teamsters
Voting Member
Term Expires 2022



Adam Steen
Employer Association Representative:
State of Iowa
Voting Member



Philip Tetzloff
Member Association Representative:
Retired IPERS Members

- Represents member, employer and retiree groups
- Important liaison between members, administrators and legislators
- Associations choose BAC representatives
 - Nine voting members
 - Public member and DAS Director
- Studies issues and makes plan recommendations to IPERS and legislature
- Ensures IPERS meets member and employer needs

IPERS Update

FY2021 Actuarial Valuation



Patrice A. Beckham, FSA, EA, FCA, MAAA
Cavanaugh Macdonald Consulting



Purpose of an Actuarial Valuation

Develop a strategy to systematically fund the benefits of the system

Measure assets and liabilities (future benefit payments)

Determine actuarial contribution rates

- 6/30/21 valuation results are used to set the FY2023 contribution rates

Analyze experience (actual vs. expected) in last year

Report on trends and analyze actuarial risks



Purpose of an Actuarial Valuation

Snapshot picture of the System as of a single date (June 30, 2021)

Statistical projection of amount/timing of future benefits to be paid

- Uses one set (best estimate) of many possible reasonable scenarios
- Other reasonable sets of assumptions exist
- Different assumptions would produce different results, potentially significant

Actual experience will determine the true costs (actual benefit payments paid to members)



Current Actuarial Assumptions

Economic Assumptions

- Investment return: 7.0% per year net of all expenses
- Price inflation: 2.6%
- Salary increases: Vary by years of service (3.25% to 16.25%)

Demographic Assumptions

- Mortality: RP-2014 Mortality Table, with adjustments to fit actual experience. Future mortality improvements projected using MP-2017 Scale
- Other assumptions based on actual experience in the past

By statute, comprehensive review of all assumptions and methods is prepared every four years (Experience Study)

- Next study will be prepared in first half of 2022
- New assumptions will be used for the June 30, 2022, valuation



Impacts on the FY2021 Valuation

No changes to assumptions, methods or benefits since prior valuation

Actuarial experience: actual versus assumed

- 29.63% return on the market value of assets in FY2021
- 12.21% return on actuarial assets resulted in actuarial gain of \$1.768 billion
- Liability loss of \$164 million, largely due to retirement and termination of employment experience

UAL decreased \$1.627 billion

Funded ratio increased from 84% to 88%



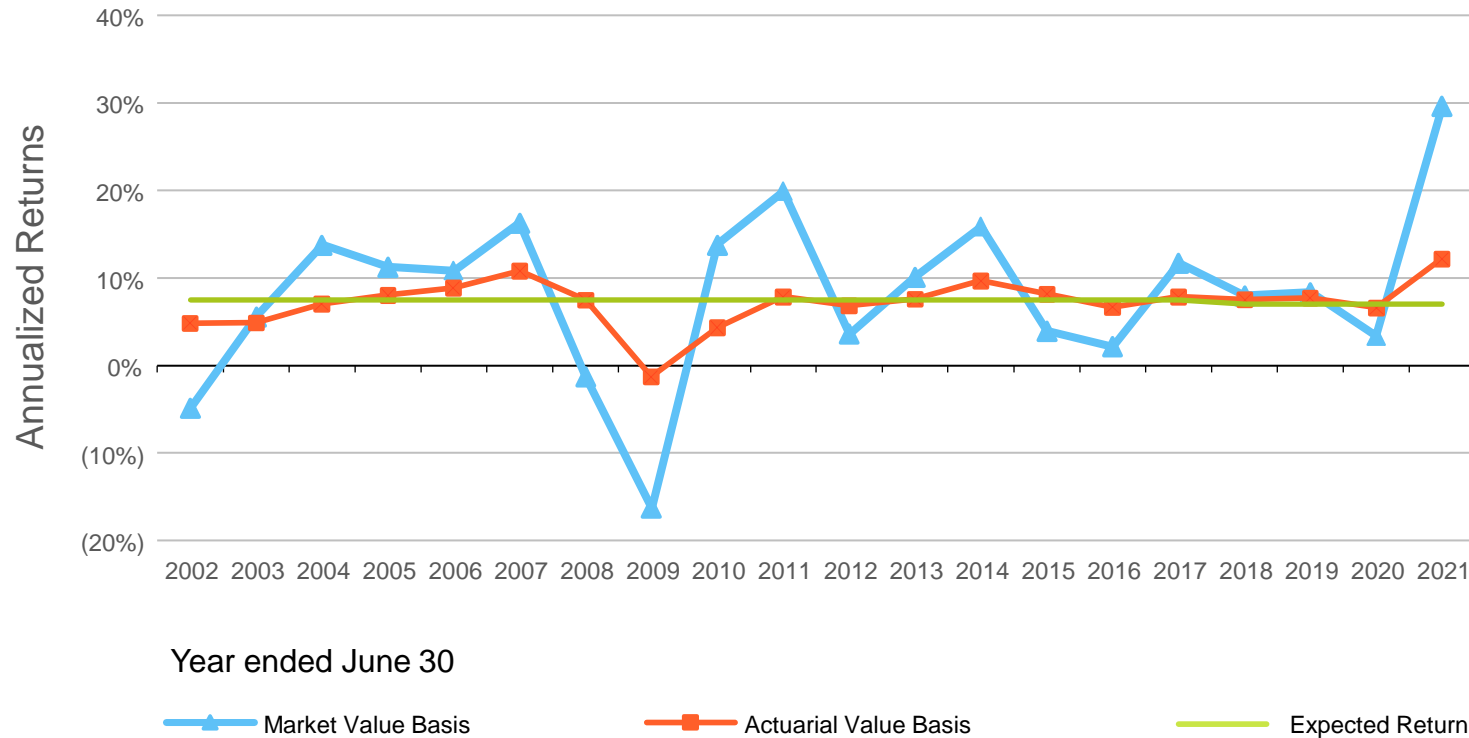
Key Valuation Results

	June 30, 2021	June 30, 2020
Actuarial Liability (\$M)	\$42,545	\$41,072
Actuarial Assets (\$M)	\$37,585	\$34,486
UAL (\$M)	\$4,960	\$6,587
Funded Ratio - AVA	88.3%	84.0%
Funded Ratio - MVA	100.8%	82.9%
Actuarial Contribution Rate*	14.14%	15.52%
Required Contribution Rate	(15.73%)	(15.73%)
Shortfall/(Margin)*	(1.59%)	(0.21%)

*Regular members only



Historical Asset Returns



Unfunded Actuarial Liability (UAL) by Group

	Regular	Sheriffs/Deputy Sheriffs	Protection Occupation	Total
Actuarial Liability	\$39,778	\$817	\$1,950	\$42,545
Actuarial Value of Assets	34,735	839	2,011	37,585
UAL	\$5,043	\$(22)	\$(61)	\$4,960
Funded Ratio	87.3%	102.7%	103.1%	88.3%

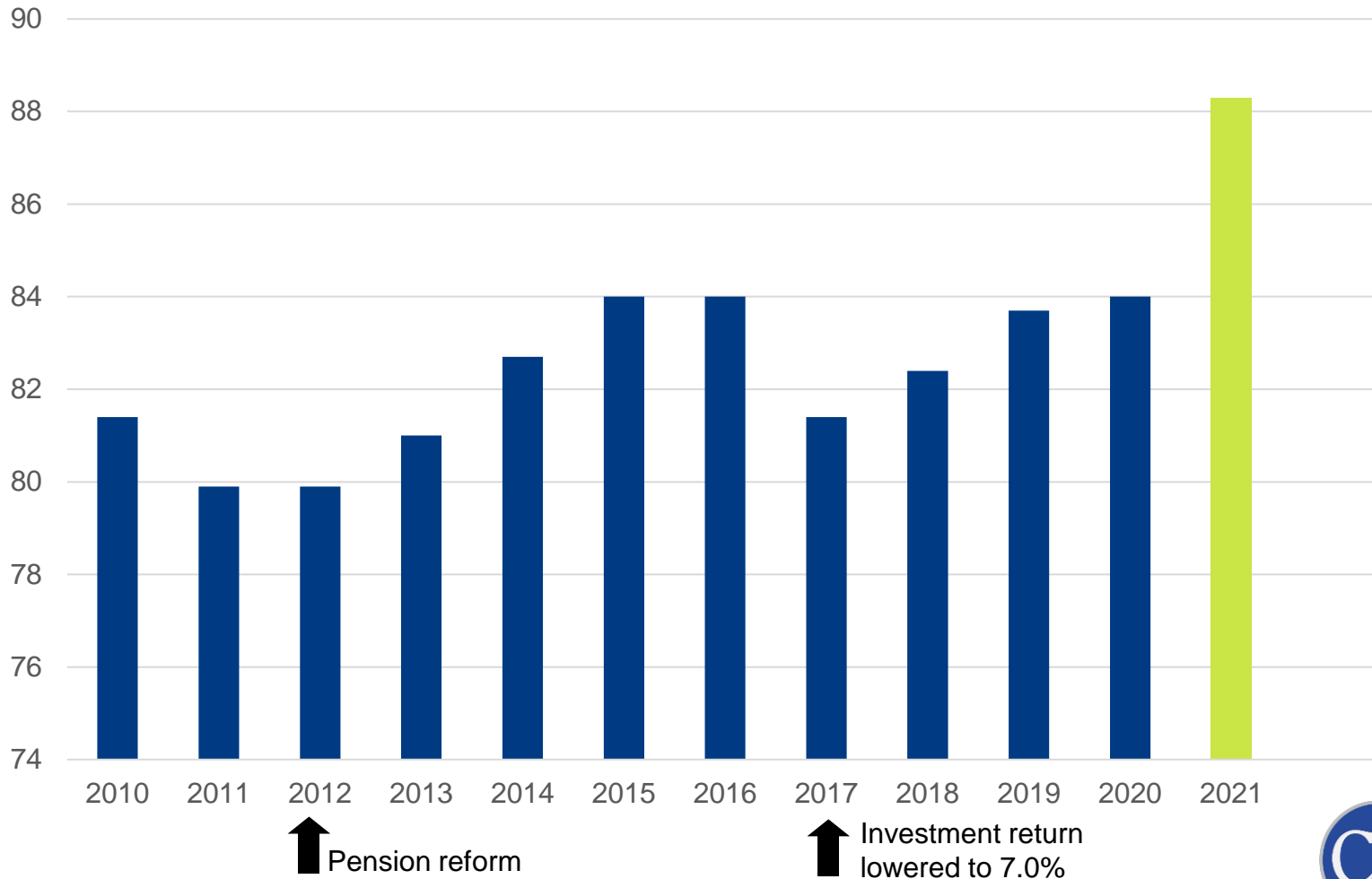


Change in UAL (all groups)

	Total
UAL 6/30/20	\$6,587
Contributions above actuarial rate	(30)
Expected increase from amortization	12
Investment experience	(1,768)
Liability experience	164
Other	(5)
UAL 6/30/21	\$4,960



Historical Funded Ratio (All groups)



Contribution Rates

Components

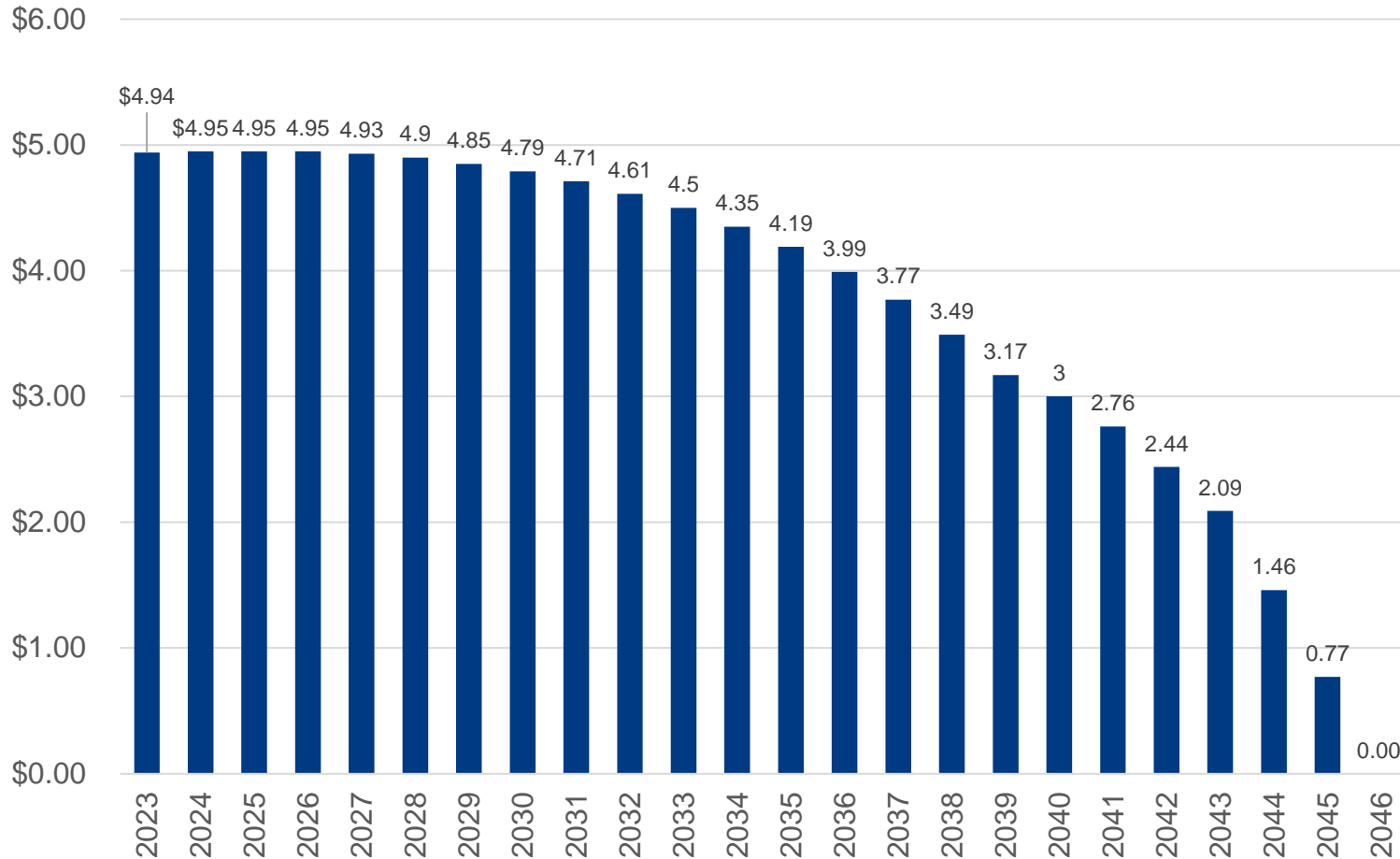
- Normal Cost (ongoing cost for actives)
- Amortization payment on Unfunded Actuarial Liability (UAL)

UAL Amortization Policy

- June 30, 2014, base is amortized over a closed 30-year period.
 - 23 years remain as of current valuation
- Each following year, changes in the expected and actual UAL are established as a new base and amortized over a closed 20-year period.
- Changes in UAL due to assumption changes in 2017 and 2018 valuations were amortized over separate closed 20-year period.
- Once a group is fully funded, all outstanding bases will be eliminated. The surplus will be amortized over an open 30-year period.



UAL Balance Under Amortization Schedule



Contribution Rates

Contribution Rate Funding Policy

- Compares Required Contribution Rate (RCR) from prior year to Actuarial Contribution Rate (ACR) in current year
- If $ACR < \text{previous RCR}$, then:
 - If difference is $< 0.50\%$, RCR is unchanged
 - If difference is $\geq 0.50\%$, RCR is lowered by 0.50% *if funded ratio is 95% or higher*

If $ACR > \text{previous RCR}$, then current RCR shall be:

- Regular members: increased to ACR or 1% more than previous RCR, whichever is smaller
- Sheriffs/Deputy Sheriffs: increased to ACR
- Protection Occupation: increased to ACR



FY2023 Contribution Rates



Unchanged



Decreased 0.50%



Unchanged





Contribution Rates

	Valuation Date (Contribution Rates for FY2023/FY2022)	
	June 30, 2021	June 30, 2020
Normal Cost	10.49%	10.50%
UAL Payment	3.65%	5.02%
Total Actuarial Rate	14.14%	15.52%
Required Contribution	15.73%	15.73%
Shortfall/(Margin)	(1.59%)	(0.21%)
*Employee Rate	6.29%	6.29%
*Employer Rate	9.44%	9.44%





Contribution Rates

	Valuation Date (Contribution Rates for FY2023/FY2022)	
	June 30, 2021	June 30, 2020
UAL Payment	(1.03%)	0.04%
Funded Ratio	102.7%	99.1%
Normal Cost	16.93%	16.88%
Applicable UAL Rate*	0.00%	0.04%
Total Actuarial Rate	16.93%	16.92%
*The UAL Rate is allowed to be negative only if the funded ratio was at least 110% for the last three years.		
Employee Rate	8.76%	9.01%
Employer Rate	8.76%	9.01%
Required Contribution	17.52%	18.02%
Shortfall/(Margin)	(0.59%)	(1.10%)





Contribution Rates

	Valuation Date (Contribution Rates for FY2023/FY2022)	
	June 30, 2021	June 30, 2020
UAL Payment	(0.84%)	0.18%
Funded Ratio	103.1%	99.4%
Normal Cost	15.3%	15.28%
Applicable UAL Rate*	0.00%	0.81%
Total Actuarial Rate	15.3%	15.46%
*The UAL Rate is allowed to be negative only if the funded ratio was at least 110% for the last three years.		
Employee Rate	6.21%	6.21%
Employer Rate	9.31%	9.31%
Required Contribution	15.52%	15.52%
Shortfall/(Margin)	(0.22%)	(0.06%)



Summary

Favorable actuarial experience (actual vs expected) in FY2021

- Gain on actuarial value of assets: \$1.768 billion
- Actuarial loss on liabilities of \$164 million
- Unfunded actuarial liability decreased from \$6.59 billion in FY2020 to \$4.96 billion

Contribution Rate Funding Policy

- Required Contribution Rate decreased for Sheriffs/Deputy Sheriffs
- Required Contribution Rate for FY2023 is greater than Actuarial Contribution Rate for all three groups

Recommend reviewing the Amortization Policy and FED transfer assumption as part of a comprehensive experience study in 2022



IPERS Update

Annual Asset Allocation Review

Wilshire

Ali Kazemi

Managing Director & Senior Consultant, Wilshire Advisors



ASSET ALLOCATION DECISION MAKING

Goal: Select a diversified mix of suitable asset classes that **maximizes return for a given level of risk**

- The appropriate asset allocation policy is determined by an investor's **risk tolerance** and **return expectation** requirements.
- Each investor's risk tolerance and return requirements should be viewed in the context of the **liabilities** that the assets are supporting.

TIME HORIZON

- 10-year forward-looking horizon return assumptions
 - ✓ Long enough to reflect investment performance over a market cycle
 - ✓ Short enough to reflect sensitivity to current market pricing
 - ✓ Best information for making strategic asset allocation policy and set return and risk tradeoffs driven by different asset class weightings
- 30-year forward-looking horizon return assumptions
 - ✓ Equilibrium assumptions that assume no reflection of current market conditions
 - ✓ Uses ultra long-term cash return assumptions and inflation as building blocks, upon which historical risk premium are layered on
 - ✓ Equities uses equilibrium dividend yield as main driver of risk premium over the entire stock market history
 - ✓ Fixed income uses equilibrium duration / credit premium and roll return
- Risk and correlation assumptions are same across the two horizons
 - ✓ Always reflects relationships across market cycles

CAPITAL MARKETS ASSUMPTIONS (AS OF JUNE 30, 2021)

	U.S. Equity	International Equity	Private Equity	Global Smart Beta	Core Fixed Income	Public Credit	Private Credit	Private Real Assets	TIPS	Private Infrastructure	Cash
Return - 10-Year (%)	4.75	6.00	7.80	5.40	1.85	3.35	4.35	5.73	1.45	7.00	1.40
Return - 30-Year (%)	6.40	7.18	9.33	6.85	3.58	5.47	5.00	6.47	3.38	8.35	2.33
Risk (%)	17.00	19.15	28.00	17.15	4.30	8.94	6.00	10.79	6.00	25.00	0.75
Correlations											
U.S. Equity	1.00										
International Equity	0.83	1.00									
Private Equity	0.74	0.67	1.00								
Global Smart Beta	0.95	0.94	0.74	1.00							
Core Fixed Income	0.28	0.09	0.31	0.20	1.00						
Public Credit	0.58	0.59	0.43	0.60	0.33	1.00					
Private Credit	0.50	0.46	0.22	0.50	0.05	0.64	1.00				
Private Real Assets	0.53	0.48	0.50	0.52	0.17	0.59	0.55	1.00			
TIPS	-0.05	0.05	-0.03	0.00	0.59	0.22	0.00	0.15	1.00		
Private Infrastructure	0.67	0.75	0.61	0.74	0.12	0.61	0.55	0.51	0.10	1.00	
Cash	-0.05	-0.08	0.00	-0.07	0.19	-0.08	-0.07	-0.06	0.20	-0.05	1.00

Wilshire's asset class return, risk and correlation assumptions are developed on 10- and 30-year forward looking expected rates of return and historical risk and correlation, adjusted to incorporate recent trends.

Return expectations for asset classes with an investable benchmark represent a passive investment in the asset class (beta). They do not reflect value added from active management (alpha).

IPERS ASSET ALLOCATION

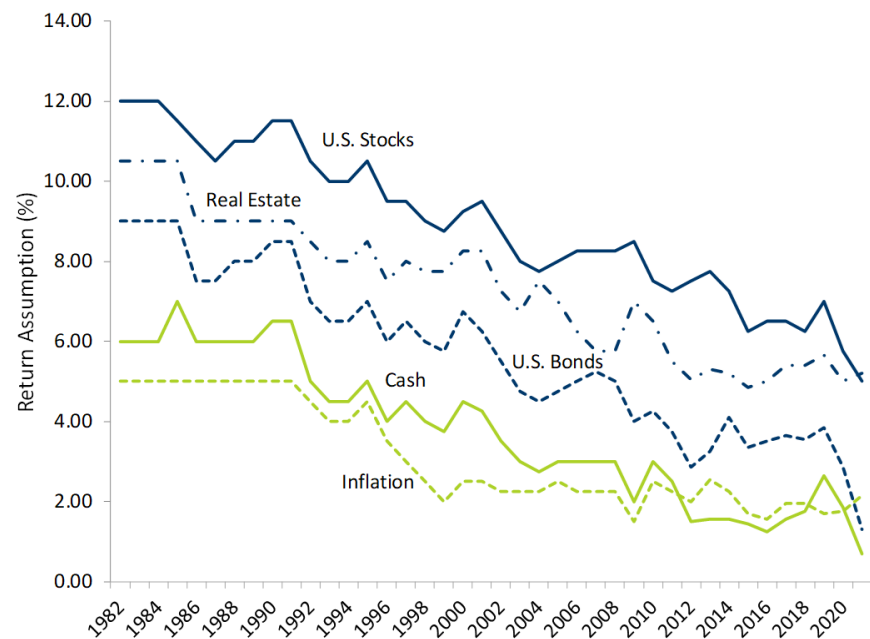
Asset Allocation Policy was revised September 2020 and reaffirmed in 2021

Asset Class	Sept 2020 Approved Policy
U.S. Equity	22.0%
International Equity	17.5%
Private Equity	13.0%
Global Smart Beta	6.0%
Total Growth Assets	58.5%
Core (Plus) Fixed Income	20.0%
Total Interest Rate Assets	20.0%
Public Credit	4.0%
Private Credit	8.0%
Total Credit Assets	12.0%
Private Real Assets	8.5%
Total Inflation Hedging Assets	8.5%
Cash	1.0%
Total Liquidity Assets	1.0%
Total Assets	100.0%
Expected Return (10-Year)	5.31%
Expected Return (30-Year)	6.71%
Standard Deviation of Return	12.01%
Sharpe Ratio (10 yr)	0.38

WILSHIRE'S FORECASTS THROUGH TIME

- Return prospects have been declining for decades, following the downward trend in interest rates
- Real cash rate acts as an anchor for all asset classes

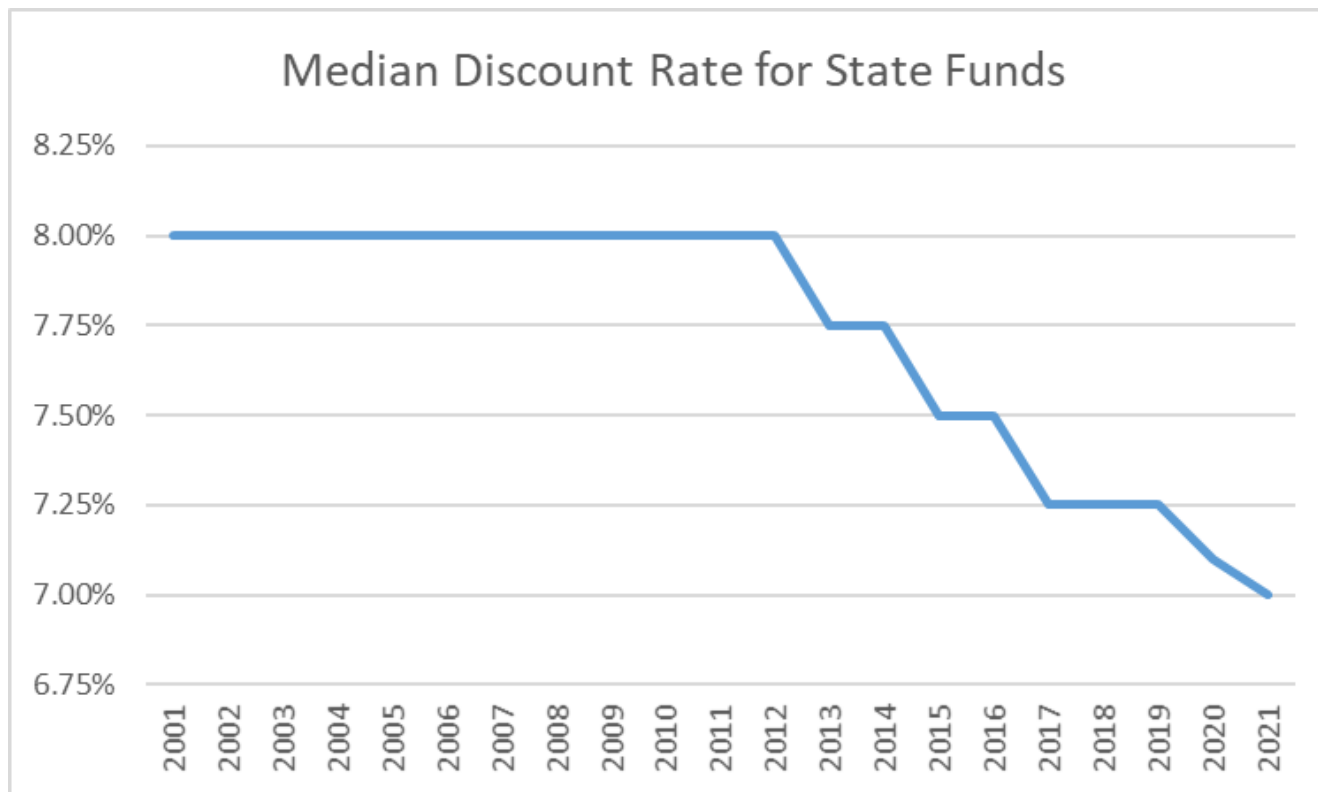
FORECASTS (JUNE 2021)		
	10-Year	30-Year
U.S. Equity	4.75%	6.40%
Real Assets (public)	5.75%	6.83%
U.S. Core Bonds(plus)	1.85%	3.58%
Cash	1.40%	2.33%
Inflation	2.45%	2.48%



Source: Wilshire Consulting

DISCOUNT RATE TREND

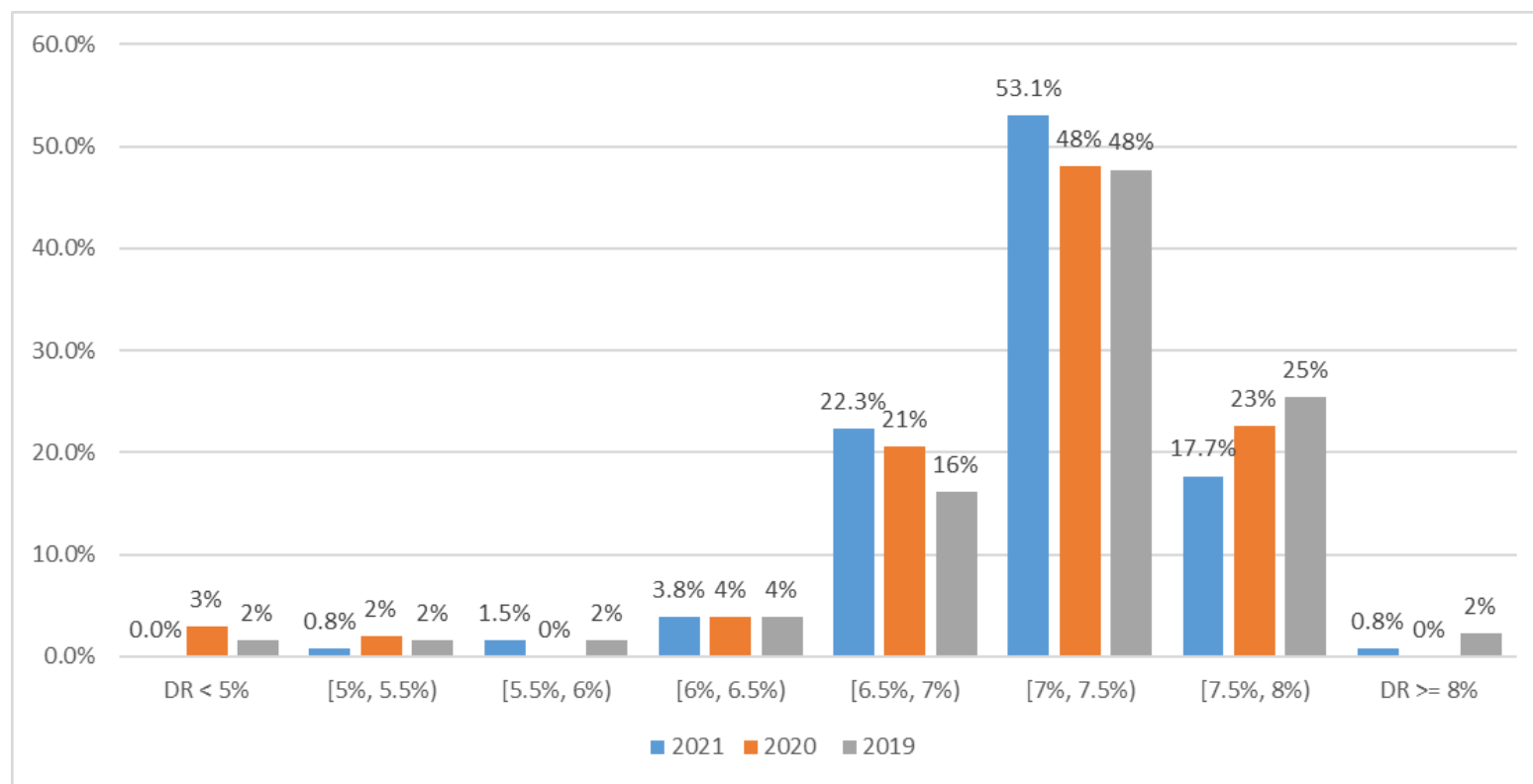
As return prospects decline, discount rates for public funds have seen a decreasing trend as well, especially since the GFC.



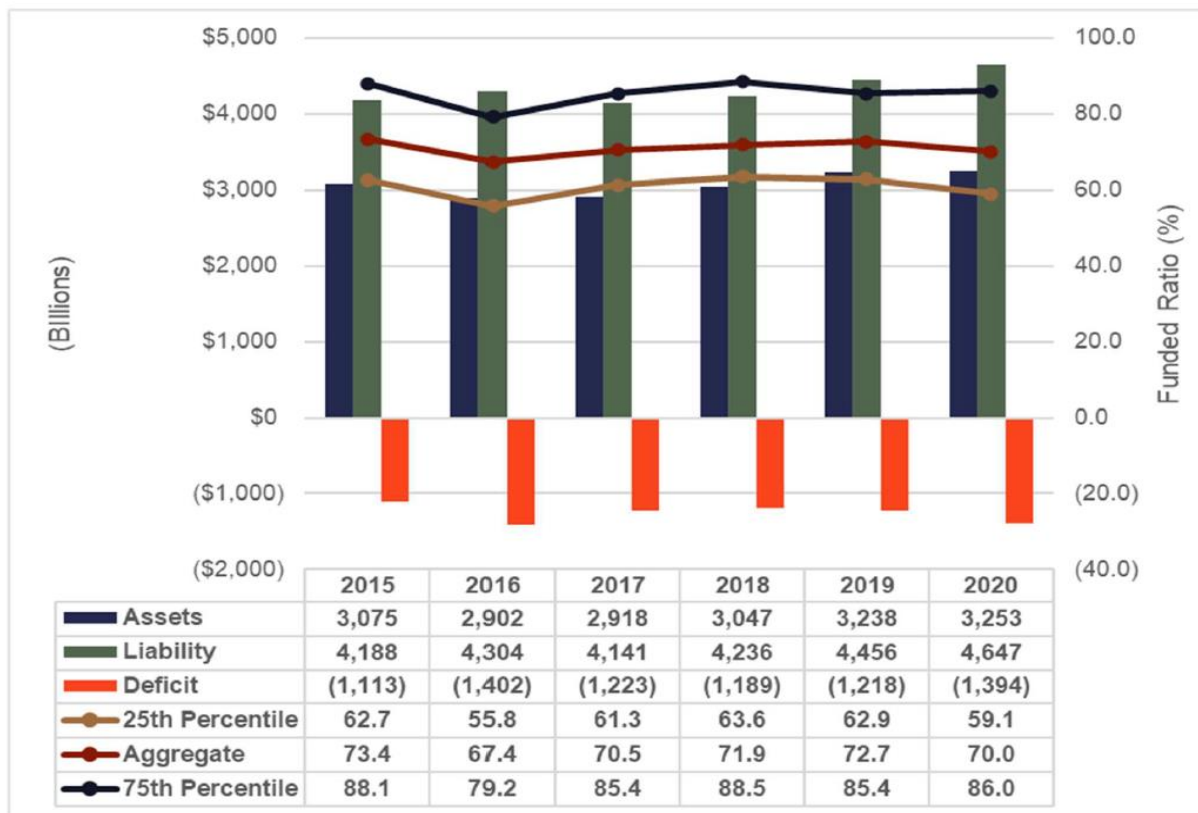
Source: Wilshire Consulting & NASRA (2021)

DISTRIBUTION OF DISCOUNT RATES

As of 2021, over 70% of the state retirement systems had a discount rate between 7%-8%



AGGREGATE FUNDED STATUS AND PLAN ASSET / LIABILITY



*Aggregate funded ratio estimated to be 70% in FY 2020,
a decrease of 2.7% from FY 2019*

Contact Us



info@ipers.org



515-281-0020
800-622-3849 (toll-free)

